

# Division of Waste Management Solid Waste Section

<b>UNIT</b>	UNIT TYPE:												
Lined MSWLF	LCID		YW	Transfer		Compost	X	SLAS		COUNTY: Chatham			
Closed MSWLF	HHW		White goods	Incin		T&P		FIRM		PERMIT NO.: <b>19-05</b>			
CDLF	Tire T&l Collection		Tire Monofill	Industrial Landfill		DEMO		SDTF		FILE TYPE: COMPLIANCE			

Date of Site Inspection: January 17, 2012 Date of Last Inspection: April 8, 2011 (site visit: 07/27/11)

## **FACILITY NAME AND ADDRESS:**

Brooks Compost Facility – Large, Type 3 SWC Facility 1195 Beal Road Goldston, NC 27252

**GPS COORDINATES**: N: <u>35.54437</u> E: <u>-79.36786</u>

## **FACILITY CONTACT NAME AND PHONE NUMBER:**

Alan Brooks, Site Manager Brooks Contractor, Inc. w. 919-837-5914 f. 919-837-5097 c. 919-842-0010 alan@brookscontractor.com

## **FACILITY CONTACT ADDRESS:**

Alan Brooks, Site Manager Brooks Contractor, Inc. 1195 Beal Road Goldston, NC 27252

## **PARTICIPANTS**

John Patrone, NCDENR – Solid Waste Section (SWS) Donna Wilson, NCDENR - SWS Alan Brooks, Site Manager - Brooks Contractor, Inc. Judy Brooks, Co-owner - Brooks Contractor, Inc. Dean Brooks, Co-owner – Brooks Contactor, Inc.

#### **STATUS OF PERMIT:**

Permit To Operate (PTO) issued January 22, 2010 PTO expiration date January 22, 2015

## **PURPOSE OF SITE VISIT:**

Comprehensive Audit

## **STATUS OF PAST NOTED VIOLATIONS:**

None

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#### **OBSERVED VIOLATIONS**

None

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

#### ADDITIONAL COMMENTS

On January 17, 2012, John Patrone and Donna Wilson met with Alan Brooks, Judy Brooks, and Dean Brooks to conduct a comprehensive audit of the Brooks Compost Facility – Large, Type 3 SWC Facility on Beal Road in Goldston, Chatham County.

- 1. The facility is a Large, Type 3 Solid Waste Compost (SWC) Facility. It produces compost from eggshell/hatchery waste, food waste (pre-consumer and post-consumer), yard waste (primarily leaves), wood mulch, animal manure/bedding, grease trap waste, etc. (as listed on page 5 of the current Facility Operations & Maintenance Manual) and additional materials approved by the Division of Waste Management (DWM).
- 2. Material is received from numerous counties within North Carolina and counties in South Carolina, Tennessee, and Virginia.
- 3. The compost produced is primarily sold to construction and landscape contractors and landscape supply businesses.
- 4. Compost operation is conducted on ~ 25 acres.
- 5. The facility is in operation Monday through Friday 7:00 am to 5:00 pm and Saturday 8:00 am to 12:00 pm (March through November).
- 6. Liquid and semi-liquid material received is unloaded into a liquids bulking and mixing pit or onto an adjacent cement pad.
- 7. Material is then mixed with absorbent bulking material and placed on/left on the concrete pad to allow remaining liquid to drain-off.
- 8. The concrete pad has drain grates that allow the leachate from this process to flow to two 3,500 gallon cement storage tanks. The cement storage tanks are used to settle-out sludge and particulate material. A 10,000 gallon steel storage tank is used to store the liquid leachate, drained from the two cement storage tanks, to be pumped-out and used on compost windrows.
- 9. Odorous material is incorporated into windrows upon delivery. The newly formed windrow is covered with a layer of food waste that has undergone several weeks of composting in order to prevent vectors and limit odor.
- 10. Other wastes are stockpiled for a few days until enough is on-hand to create a windrow
- 11. Windrows are commonly ~ 250' x 16' x 6'. The facility routinely has ~ 38 active windrows. And can maintain a maximum of 43 windrows.
- 12. The facility primarily uses a windrow-turning machine to turn active windrows.
- 13. Windrows commonly undergo composting for ~ 5 months during which time required monitoring is conducted. Afterward, windrows are incorporated and left to cure for ~ 12 months. During the inspection the facility had three large curing piles. The facility is reminded that stockpiling of finished product shall be limited to a height of 60 feet.
- 14. The current pile of cured compost sold to customers is over 2 years old. All compost is screened prior to sale.
- 15. Compost windrows are organized into separate operational areas: eggshell, food waste, leaves, other wastes, and non-eggshell with limited food waste.
- 16. The facility operational capacity is limited to 75,000 tons of feedstocks per year received for composting.

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- 17. The facility maintains records of the amount and type of material received. The amount of material received from July 1, 2011 through January 16, 2012 is 35,646 tons.
- 18. Ethanol production waste, associated with an industrial clean-up, (preapproved by SWS per 08/15/11 file copy letter) was received from August 15, 2011 through October 14, 2011. Each trailer-load accepted contained ~ 6,000 gallons. The facility received no more than three trailer-loads per day, when hauling occurred. Billing records were verified.
- 19. The facility annual report was received by the SWS on July 27, 2011. Facility throughput for July 2010 through June 2011 is 52,270.45 tons. And the amount of compost produced is 28,325.50 tons.
- 20. The facility produces Grade A compost and provides an information pamphlet to customers.
- 21. Windrow records were verified for temperature, moisture level, turning intervals, bulk density, and C:N calculation. The facility uses Green Mountain Technologies, Inc. windrow manager software. The program allows the facility to electronically maintain active windrow data, calculate windrow bulk density and C:N ratio, and record and graph data. Ensure that the windrow manager software is honed for specific facility material throughput.
- 22. The facility records when windrows are turned. Windrows are turned five times usually ~ 15 days prior to being moved to the curing area.
- 23. The moisture level is measured by hand via the method outlined in the current Facility Operations & Maintenance Manual, pg 12. The moisture level is required to be maintained between 40 to 60 percent.
- 24. The facility conducts ~ 35 to 40 temperature reading per windrow during the composting process. Records for April 2011 through January 12, 2012 were confirmed.
- 25. The facility has four temperature probes used to monitor window temperature. Temperature probes are calibrated twice a month. Ensure that temperature probe calibration records are maintained.
- 26. Testing records were verified for fecal coliform and metals, sample taken June 29, 2011. The sample was analyzed by A&L Great Lakes Laboratory, Inc., Fort Wayne, IN (lab No. 55455). Additional metal samples were taken on 08/06/11, 09/13/11, 10/12/11, 12/29/11, and 01/13/12 analyzed by the NCDA&CS Agronomic Division.
- 27. The facility has a water truck used for dust control.
- 28. There was no odor detected at the facility boundary.
- 29. Erosion and sedimentation controls appeared in good order.
- 30. The facility has three clay-lined stormwater ponds. Stormwater is pumped-out and used in the active windrow process. The facility does not discharge stormwater from the containment ponds but may pump-and-haul it to the Siler City Wastewater Treatment Plant if a sufficient amount is not used by the facility.
- 31. Appropriate fire lanes were maintained. The Goldston Fire Department will be contacted to address an emergency situation.
- 32. The facility has proper signage.
- 33. Access roads are of all weather construction.
- 34. The facility is secured when not in operation (Brooks' residence located at entrance drive to facility). Facility personnel are on site during operating hours.
- 35. The PTO expiration date is January 22, 2015.
- 36. The PTO renewal application should be submitted to the SWS by September 22, 2014.

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Please contact me if you have any questions or concerns regarding this inspection report.

John Patrone

Environmental Senior Specialist Regional Representative Phone: <u>336-771-5095</u> Fax: <u>336-771-4631</u>

Sent on: January 19, 2012	X	Email		Hand delivery		US Mail		Certified No. [_]
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Copies: Dennis Shackelford, Eastern District Supervisor

Julie Ventaloro, Compliance Officer Donna Wilson, Environmental Engineer

Judy Brooks, Brooks Contractor, Inc., <a href="mailto:judy@brookscontractor.com">judy@brookscontractor.com</a> Amy Brooks, Brooks Contractor, Inc., <a href="mailto:judy@brookscontractor.com">judy@brookscontractor.com</a>

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Digital pictures taken January 17, 2012 by John Patrone, DWM-SWS

Liquid and semi-liquid material bulking and mixing pit



Eggshell/hatchery waste active windrow



Leaf compost active windrows



Food waste active windrows, curing piles in background

